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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

JOHNSON, TIMOTHY M

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 12/29/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/755,045

Applicant(s)

KATSUYAMA, YUTAKA

Examiner

Timothy M Johnson

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16,29 and 40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 16,29 and 40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 08/909,137.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5-6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim for Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 08/909,137, filed on August 11, 1997.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 16, 29, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bessho, 5,898,795, in view of Abe, 5,129,012.

For claim 16, a ruled line extracting apparatus, comprising a straight line extracting means for extracting information of one or more straight line patterns from an input image is provided by Bessho in at least Fig. 2, block 10, or Fig. 3, block 20, providing for an input image, and at least the paragraph bridging cols. 8-9, and the first three full paragraphs in c. 9, and at least Figs. 4-5, 7-12, 13B, and 15, where extracting is explicitly provided by Bessho. Straight line deleting means for determining whether or not to delete either of a horizontal straight line pattern and a vertical straight line pattern included in the one or more straight line patterns is provided by Bessho in at least the first two full paragraphs in c. 11, and alternately in the first two full paragraphs in c. 12.

Art Unit: 2625

Bessho does not explicitly provide for deleting the one or more straight line patterns, based on a link relationship between the horizontal straight line pattern and the vertical straight line pattern. Deleting either of a horizontal straight line pattern and a vertical straight line pattern included in the one or more straight line patterns, based on a link relationship between the horizontal straight line pattern and the vertical straight line pattern is conventional and well known, and is provided by Abe in at least F1C, blocks 328-344, Figs. 8A-8B, 9B-9C, the penultimate full paragraph in c. 2, the penultimate full paragraph in c. 3 to the first full paragraph in c. 4, the paragraph bridging cols. 4-5, and the paragraph bridging cols. 13-14. It would've been obvious to one having ordinary skill in the art at the time the invention was made to delete based on a link relationship between horizontal and vertical straight line patterns, with the deletion of straight lines of Bessho, since Abe also provide for detecting lines even if tilted and for the detection of lines of many types.

For claims 29 and 40, see the rejection of at least claim 16 and c. 6, lines 49-53, of Bessho for a computer readable medium implementation. See also Abe in at least the second full paragraph in c. 4.

4. Claims 16, 29, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang, 5,307,422, in view of Abe, 5,129,012.

For claim 16, a ruled line extracting apparatus, comprising straight line extracting means for extracting information of one or more straight line patterns from an input

image is provided by Wang in at least c. 5, lines 15-50 and lines 65-68, by extracting information of units, which can consist of border lines considered as ruled lines, and inputs an image by at least block 12 in Fig. 1. Straight line deleting means for determining whether or not to delete either of a horizontal straight line pattern and a vertical straight line pattern included in the one or more straight line patterns is provided by Wang in at least c. 5, line 30 – c. 6, line 10. Wang does not explicitly provide for deleting the one or more straight line patterns, based on a link relationship between the horizontal straight line pattern and the vertical straight line pattern. Deleting either of a horizontal straight line pattern and a vertical straight line pattern included in the one or more straight line patterns, based on a link relationship between the horizontal straight line pattern and the vertical straight line pattern is conventional and well known, and is provided by Abe in at least F1C, blocks 328-344, Figs. 8A-8B, 9B-9C, the penultimate full paragraph in c. 2, the penultimate full paragraph in c. 3 to the first full paragraph in c. 4, the paragraph bridging cols. 4-5, and the paragraph bridging cols. 13-14. It would've been obvious to one having ordinary skill in the art at the time the invention was made to delete based on a link relationship between horizontal and vertical straight line patterns, with the deletion of straight lines of Wang, since Abe also provide for detecting lines even if tilted and for the detection of lines of many types.

For claims 29 and 40, see the rejection of at least claim 16 and at least the paragraph bridging cols. 4-5 of Wang, where his invention can be implemented in either

Art Unit: 2625


hardware or software for a computer readable medium implementation. See also Abe in at least the second full paragraph in c. 4.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy M. Johnson whose telephone number is (703) 306-3096, or the Supervisory Patent Examiner, Bhavesh M. Mehta, whose telephone number is (703) 308-5246.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone numbers are (703) 305-4700, (703) 305-4750, (703) 305-9600, or (703) 305-3800, or Customer Service at (703) 306-0377.

The Group Art Unit FAX number is 703-872-9306.


TIMOTHY M. JOHNSON
PRIMARY EXAMINER

Timothy M. Johnson
Patent Examiner
Art Unit 2625
December 18, 2003